

## ABSTRACT

A porous ceramic support for a gas separation membrane formed by sintering a green body containing grains of a refractory ceramic oxide with a high coefficient of thermal expansion and grains of a reactive binder precursor. Upon sintering, the reactive binder precursor reacts with at least one gaseous, liquid or solid reactant to create a reaction bond that binds the refractory ceramic oxide grains. The support configuration can be a tubular, flat plate, hollow fiber, or multiple-passageway monolith structure.